

BEFORE THE HEARING BOARD  
OF THE  
BAY AREA AIR QUALITY MANAGEMENT DISTRICT  
STATE OF CALIFORNIA



In the Matter of the Application of	)	Docket No. 3741
	)	
BERKELEY LANDFILL	)	
	)	APPLICANT CITY OF BERKELEY'S
	)	OPENING BRIEF
Regulation 8, Rule 34, Section 301.1;	)	and MOTION to PERMIT
Regulation 8, Rule 34, section 113.2; and	)	AMENDMENT TO
Permit to Operate #1826, Part 3	)	VARIANCE APPLICATION
	)	
	)	

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**APPLICANT'S OPENING BRIEF**

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**I. INTRODUCTION**

The City of Berkeley (City) operates Cesar Chavez Park, which is the site of a closed municipal landfill. The landfill closed in 1983 and is undergoing post-closure monitoring and maintenance. One maintenance activity performed by the City involves operation of a gas collection and control system (GCCS). The Landfill's GCCS collects landfill gas (LFG) from all areas of the landfill and sends it to a landfill gas flare (LGF) where the LFG is combusted within the enclosed flare.

The heart of the dispute here and the need for a regular variance is the well-established fact that closed municipal landfills produce less landfill gas over time—the production decline curve. Because of this fact, the City has modified its GCCS operations to manage declining gas production at the closed landfill. Previously, the City operated a larger flare and obtained permission from the Bay Area Air Quality Management District (District) to operate this flare on a Less-Than-Continuous (LTC) basis, to reflect the reality that gas production was declining.

1 The District approved LTC variances each year for nine years (2009-2018). The City  
2 then switched out<sup>1</sup> its LFG on June 9, 2019 to a much smaller capacity enclosed flare,  
3 permitted as A-4. This action was undertaken to reflect declining landfill gas production at the  
4 Landfill. As the Landfill had been operating on a LTC basis for most of a decade, the City was  
5 not concerned with exceeding the requirements of BAAQMD Regulation 8, Rule 34, Part  
6 113.2, which allows for up to 240 hours of inspection and maintenance downtime of the  
7 GCCS.

8 Because of declining landfill gas production and exceptional weather events, and  
9 because of the consistent approvals over a nine-year period by the District for LTC operation  
10 of the previous A-3 flare, on May 18, 2022 the City filed an application<sup>2</sup> with the District for a  
11 variance to allow the City to operate the A-4 flare on a less-than-continuous basis<sup>3</sup>. The  
12 District's response involved sending the City a protracted series of information request letters<sup>4</sup>.  
13 Exasperated with the likelihood that the District would not act on the LTC variance application  
14 in a reasonable timeframe, the City withdrew its LTC variance application.

15 In place of its LTC variance application, the City pursues an alternative compliance  
16 approach. On May 30, 2023 the City filed the pending application for a regular variance which  
17 requests additional allowable (GCCS) downtime.

## 18 **II. DISCUSSION**

19 The City will operate the GCCS in a safe manner at all times. During times when LFG  
20 collection is poor from either low pressure or low concentrations of methane (the key  
21 component of LFG), one operational approach is to close the system and shut down the flare.  
22 Closing the system and shutting down the flare is also known as 'downtime.' When the GCCS  
23 is shut down (or in downtime), the system is able to 'recharge,' meaning that pressure is  
24

25 <sup>1</sup> The old A-3 flare was permanently decommissioned and removed from the site.

26 <sup>2</sup> May 18, 2022 Petition for Less-Than-Continuous Operation of Flare by SCS Engineers on behalf of City of  
Berkeley, by Anne Liu/Staff Professional and Pat Sullivan/Senior VP.

27 <sup>3</sup> This application is renewed herein in Applicant's Motion to Permit Amendment to Variance Application, *infra*.

28 <sup>4</sup> The City, through its consultants SCS Engineers, responded on September 26, 2022, January 16, 2023 and March  
21, 2023 to three Information Request Letters sent by the District on July 1, 2022, Oct. 28, 2022 and Feb. 3, 2023,  
respectively.

1 allowed to increase in the system. When indicated, the system is re-opened and is able to  
2 provide enough gas to operate the LFG. This approach is the essence of Less-Than-Continuous  
3 operation of the LFG.

4 Downtime is a definitional component of LTC operation. Indeed, when the District last  
5 approved the City's LTC application, it required only 312 hours of flare operation per month.  
6 Since there are 8,760 hours in a year, this requirement is the equivalent of permission to *not*  
7 operate the flare for 5,016 hours per year.

8 The City anticipates, for reasons set out in its May 30, 2023 Application for Regular  
9 Variance, that it will need downtime hours in addition to the 240 hours of inspection and  
10 maintenance downtime allowed by Regulation 8, rule 34, Part 113.2. Because of the variables  
11 involved—uncertain and declining LFG production and erratic weather—the City is unable to  
12 specify an exact amount of additional downtime hours that it will need to operate the GCCS in  
13 compliance.

14 It is important to note that during *each year* of the nine years that the District approved  
15 the City's request to operate the LFG on a LTC basis, the City was in the exact same position it  
16 is now. The City was faced with uncertain and declining LFG production. The City would  
17 have been unable to specify an exact amount of additional downtime that it needed in order to  
18 be able to operate the GCCS in compliance if the District did not approve LTC operation. But  
19 there was no need to specify an exact amount of needed additional downtime because LTC  
20 operation allows for downtime as needed. Except for the requirement that the flare operate for  
21 312 hours per month (or approximately 10 hours per day) here was no 'clock' or metric for  
22 downtime hours when operations were conducted on a Less-Than-Continuous basis.

23  
24 It is also crucial to note that the purpose of the GCCS is to control surface emissions of  
25 LFG, and methane in particular<sup>5</sup>. The City has never reported methane surface emissions from  
26 the landfill that exceed any regulatory standard. That is, at all times—whether under

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28 <sup>5</sup> Regulation 8, Rule 34, Part 101 ("The purpose of this Rule is to limit the emission of non-methane organic  
compounds and methane from the waste decomposition process at solid waste disposal sites.")

1 specifically approved LTC operation or under the City's alternative compliance approach after  
2 the District refused to act on its most recent LTC application—the City has performed the  
3 essential function of the GCCS.

4 By failing to act on the 2022 LTC application, the District has placed the City in a  
5 precarious position, where it must apply for additional downtime knowing that it cannot  
6 specify an exact amount of additional downtime hours it needs.

7 **III. THE REQUIRED FINDINGS ARE MET**

8 California Health and Safety Code section 42352 states that no variance shall be granted  
9 unless the hearing board makes all six prescribed findings. All six of the required findings are  
10 met in this application:

11 *(1) That the petitioner for a variance is, or will be, in violation of Section 41701 or of*  
12 *any rule, regulation, or order of the district.*

13 The City will be in violation of the District's Regulation 8, Rule 34, Part 113.2 if a  
14 variance is not granted.

15 *(2) That, due to conditions beyond the reasonable control of the petitioner, requiring*  
16 *compliance would result in either (A) an arbitrary or unreasonable taking of property, or (B)*  
17 *the practical closing and elimination of a lawful business. In making those findings where*  
18 *the petitioner is a public agency, the hearing board shall consider whether or not requiring*  
19 *immediate compliance would impose an unreasonable burden upon an essential public*  
20 *service. For purposes of this paragraph, "essential public service" means a . . . landfill gas*  
21 *control or processing facility . . . if owned and operated by a public agency.*

22  
23 The decline in LFG production at the closed Berkeley Landfill is the condition leading  
24 to this variance request, and it is beyond the reasonable control of the City because it is a  
25 predictable and inevitable natural process. Requiring compliance would impose an  
26 unreasonable burden upon an essential public service—to wit, a landfill gas control or  
27 processing facility. Discussions with the District have raised the possibility of removing and  
28 re-installing the underground gas collection works at the Berkeley Landfill. This could cost

1 millions of dollars, but there has been no finding by the District that any such work would  
2 actually resolve the District's stated concerns, nor has the District offered any assurance that  
3 LTC operation would be approved after the work is completed. Since the Landfill has been  
4 closed for 40 years and LFG production is dropping to marginal levels—as is expected at an  
5 aging landfill—requiring the rebuild of the underground works would be fiscally irresponsible  
6 and pointless.

7 Pursuant to Health and Safety Code section 42352.5, subdivision (a), the Hearing Board  
8 must consider at least two factors when making its determination with respect to this second  
9 factor:

10 *(a) In determining whether or not conditions exist which are beyond the*  
11 *reasonable control of the petitioner, the hearing board shall consider the extent to*  
12 *which the petitioner took actions to comply or seek a variance, which were timely and*  
13 *reasonable under the circumstances. In so doing, the hearing board shall consider*  
14 *actions taken by the petitioner since the adoption of the rule, regulation, or order from*  
15 *which the variance is sought.*

16 As demonstrated above, the City acted with diligence to renew LTC operations;  
17 however, District failed to act on the City's LTC application for nearly a year. The City  
18 then quickly changed tack to seek this variance once it became apparent the District  
19 would not act on the City's LTC application.

20 *(b) In determining whether or not requiring compliance would result in either*  
21 *an arbitrary or unreasonable taking of property or the practical closing and*  
22 *elimination of a lawful business, the hearing board shall consider whether or not an*  
23 *unreasonable burden would be imposed upon the petitioner if immediate compliance*  
24 *is required.*

25 Immediate compliance would impose an unreasonable burden because there is no  
26 evidence that immediate compliance is even possible. The Berkeley Landfill stopped  
27 receiving waste 40 years ago, and as expected, the amount of LFG produced  
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1 underground has drastically diminished over time. This lack of a reliable methane  
2 source is the root of the City's inability to maintain continuous flare operations and  
3 therefore the reason both for the decade of LTC operation applications and this variance  
4 application. Meanwhile, the District cannot establish that any other action by the City  
5 would result in the ability to maintain continuous flare operations.

6 ***(3) That the closing or taking would be without a corresponding benefit in reducing***  
7 ***air contaminants.***

8 Denying the variance not provide any benefit in the form of reduced air contaminants.  
9 The City has never reported methane surface emissions in exceedance of regulatory  
10 requirements. However, LFG may be allowed to reach the surface and be emitted to the  
11 atmosphere if the GCCS is not permitted to operate in its current manner. Methane is noxious,  
12 potentially combustible, and a potent greenhouse gas. Without a functioning GCCS—which is  
13 currently in place as operated—air contaminants could *increase* at the Berkeley Landfill.  
14 Therefore, denying the variance or forcing the Berkeley Landfill GCCS to close operations  
15 could increase air contaminants.

16 ***(4) That the applicant for the variance has given consideration to curtailing***  
17 ***operations of the source in lieu of obtaining a variance.***

18 The Berkeley Landfill is a closed municipal landfill; the only operations are the  
19 collection and control of LFG. For the reasons stated in (3) above, curtailing these operations  
20 would be more likely to cause increases to air emissions, not any reduction. Therefore,  
21 curtailing operations is not a feasible alternative to obtaining a variance.

22 ***(5) During the period the variance is in effect, that the applicant will reduce excess***  
23 ***emissions to the maximum extent feasible.***

24 The City is committed to maintaining surface emissions below all applicable regulatory  
25 thresholds. Indeed, as there has never been a reported emission exceedance, there is no basis to  
26 conclude or even suspect that the City will not continue maintain emissions at the Landfill well  
27 below regulatory requirements.  
28

1           (6) *During the period the variance is in effect, that the applicant will monitor or*  
2 *otherwise quantify emission levels from the source, if requested to do so by the district, and*  
3 *report these emission levels to the district pursuant to a schedule established by the district.*

4           The City already monitors and otherwise quantifies emission levels at the Berkeley  
5 Landfill, and has been doing so with documentation for decades. These efforts will continue.

6           **IV. CONCLUSION AND REQUESTED RELIEF**

7           Based on the amount of downtime required in 2023, the City estimates it would need up  
8 to approximately 500 downtime hours per year in addition to the 240 hours granted by rule.  
9 Therefore, the City respectfully requests the Hearing Board approve the City's variance  
10 application for additional downtime hours for the operation of the LGF, in an amount not to  
11 exceed 750 hours.  
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## APPLICANT'S MOTION TO PERMIT AMENDMENT TO VARIANCE APPLICATION

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The Hearing Board Rules at §7.3 allow amendments to applications. This proposed amendment does not require the issuance of a new public notice because the change involves the same air contaminants, the same facility name and facility address (i.e. Berkeley Landfill) as the pending application.

### **I. PROPOSED AMENDMENT**

The City of Berkeley respectfully requests the Hearing Board to permit the variance application to be amended to include the City's application, previously made on May 18, 2022, which requested Less-Than-Continuous operation of the City's LGF at the Berkeley Landfill.

### **II. ARGUMENT**

First, the District is not prejudiced by this amendment request. In fact, the District has been able to conduct extensive "quasi-discovery" through its serial information requests sent to the City over a 7-8 month period.<sup>6</sup>

Second, the City's previous LGF, the A-3, and the District's consistent approvals over nine years allowing Less-Than-Continuous operation of that flare, is a reasonable regulatory approach taken by the District. Landfill gas production declines over time. Approving LTC operation of the A-4 flare is historically consistent and regulatorily appropriate for this site, a landfill that last received waste 40 years ago.

The District has indicated that LTC operation is not appropriate for the A-4 LGF in part because the District suspects the Landfill is leaking. However and unfortunately, the District has been unable to identify the factual basis for this contention. And more importantly, the District has been unable to identify the type of evidence that would satisfy the District, one way or the other, whether the Landfill is leaking or not. Meanwhile, each previous approval by the District of the City's LTC application confirms that the Landfill is simply not generating

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<sup>6</sup> See Footnote 4 above.



1 sufficient LFG. Under the District's rules, LTC operation is granted only when "a landfill is  
2 not generating enough landfill gas to operate the emission control system continuously." Rule  
3 8-34-404. There is no dispute that an old, closed landfill such as the Berkeley Landfill will  
4 generate ever less LFG over time, but the District refuses to identify a means for the City to  
5 establish that its current inability to operate the flare continuously is due to this natural,  
6 expected, and unavoidable fact.

7 The District's position puts the City in potential devastating financial jeopardy, since if  
8 there is no 'test' to prove whether or not the Landfill is leaking, it could seem 'reasonable' for  
9 the District to require the City to replace piping and associated gas collection works at the  
10 Landfill. This is a 40-year-old former municipal landfill with a predictable declining gas  
11 production curve. What the District assumes without sufficient evidence to be a leaking  
12 landfill is in fact a landfill with less gas to collect and produce, and less gas to operate the LFG.

13 The District is being unreasonable in refusing to act on the LTC operation variance  
14 application, and doing so without providing on the record a rational basis that conforms to  
15 good engineering practice.

16 **III. REQUESTED RELIEF**

17 The City respectfully requests the Hearing Board permit the City to amend its variance  
18 application to include all the materials contained in the City's previously submitted LTC  
19 application for the City's LFG.  
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21 Dated: November 20, 2023

22 Respectfully submitted,

23 BERKELEY CITY ATTORNEY'S OFFICE

24  
25 By: 

26 Marc Shapp  
27 Attorney for the City of Berkeley  
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CERTIFICATE OF SERVICE



I, the undersigned, certify that I am employed in the City of Berkeley, County of Alameda, California; that I am over the age of eighteen years and not a party to the within action; that my address is 2180 Milvia Street, 4th Floor, Berkeley, California 94704. On this date, I served the following document(s):

▪ **APPLICANT CITY OF BERKELEY'S OPENING BRIEF AND MOTION TO PERMIT AMENDMENT TO VARIANCE APPLICATION**

on the party(ies) listed below, through their attorneys of record, by placing a true copy thereof in a sealed envelope addressed as shown below by the following means of service:

Joel Freid  
Assistant Counsel II  
Legal Division  
Bay Area Air Quality Management District  
375 Beale Street, Suite 600  
San Francisco, CA 94105  
Tel: (415) 749-4971 / Fax: (415) 749-5103  
Email: JFreid@baaqmd.gov.

**X** By First Class Mail - I am readily familiar with the firms' practice for collection and processing of correspondence for mailing. Under that practice, the correspondence is deposited with the U.S. Postal Service on the same day as collected, with first-class postage thereon fully prepaid, in Berkeley, California for mailing to the office of the addressee following ordinary business practices.

1 I declare under penalty of perjury under the laws of the State of California that the  
2 foregoing is true and correct. Executed November 20, 2023, at Berkeley, California.

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6 Celestine Seals  
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